

HEIDENHAIN programming stations

– Programming, archiving, and training

– Your workstation

Why a programming station?

It is, of course, easy to write a part program with the TNC at the machine, even while the machine tool is machining a different part. Nevertheless, short reloading times and other machining tasks can often hinder any prolonged or concentrated programming work. With a HEIDENHAIN programming station, you have the capability to program just as you do at the machine, but away from the noise and distractions of the shop floor.

Creating programs

Programming, testing, and optimizing HEIDENHAIN Klartext or G-code programs with a programming station substantially reduces machine idle times. You need not adjust your way of thinking—every keystroke fits. On the programming station you program on the same keyboard unit as at the machine.

Testing of programs created offline

Of course you can also test programs that were written on a CAD/CAM system. The high-resolution program verification graphics help you to easily spot contour damage and hidden details even in complex 3-D programs.

Training with the programming station

Since the programming stations are based on the same software as the controls, they are ideally suited for apprentice-level and advanced training. Programming and program testing are performed in exactly the same way as they are on the machine. This gives the trainee the experience needed to safely operate the machine.

And because the HEIDENHAIN controls can be programmed in Klartext and G-code, the programming stations can also be used in schools for TNC programming training.

What can the programming station do?

The programming modes offer you the same features as the TNC on the machine. You create programs by the following means:

- In HEIDENHAIN Klartext format or G-code
- With graphic support for program input and testing
- With field-proven TNC functions, such as FK free contour programming
- By direct data transfer from standardized CAD formats (DXF, STEP, IGES)

With the programming station, you are working with the original control software. This ensures compatibility. Part programs created with the programming station run on any machine tool equipped with the appropriate control. A requirement for this to work is that the programming station software must have been adapted to the machine.

One special benefit: the complete array of **software options** and—on the iTNC 530—**FCL functions** available at a cost for the control are fully enabled on the TNC programming station. This enables users of the licensed versions and the free demo version to amply test all functions and then decide whether an upgrade on the machine is worthwhile.

What does the programming station look like?

The programming station is an application for PCs with Windows operating systems. The software offers you the same TNC user interface and graphic support as the control on your machine. Depending on the version of the programming station, there are several types of possibilities for using it.

Demo version of the programming station

A demo version of the programming station is available for testing (for free download at www.heidenhain.de or on DVD). It contains all functions of the TNC, and permits short programs to be saved. The demo version is programmed with the virtual keyboard or PC keyboard. The legend for the control keys is included.

Programming station with TNC operating panel

A separate TNC machine operating panel is connected to the PC via the USB port. You then create your programs as always on the same keyboard as on the machine. The keyboard also includes the soft keys, which are otherwise integrated into the display unit. It has a PC keyboard for convenient and efficient entry of file names and comments. Overlays for better soft-key association and self-adhesive strain relief for the USB cable are included in delivery.

If you already have a programming station or network license with a virtual keyboard, you can expand it with a TNC operating panel. You can also order the TNC operating panel without a dongle.

Programming station with virtual keyboard

You can also work without the TNC operating panel: this programming station is operated with a virtual keyboard instead. It is displayed together with the TNC control panel on the PC screen, and features the most important dialog initiation keys of the TNC. A dongle for the software is included.

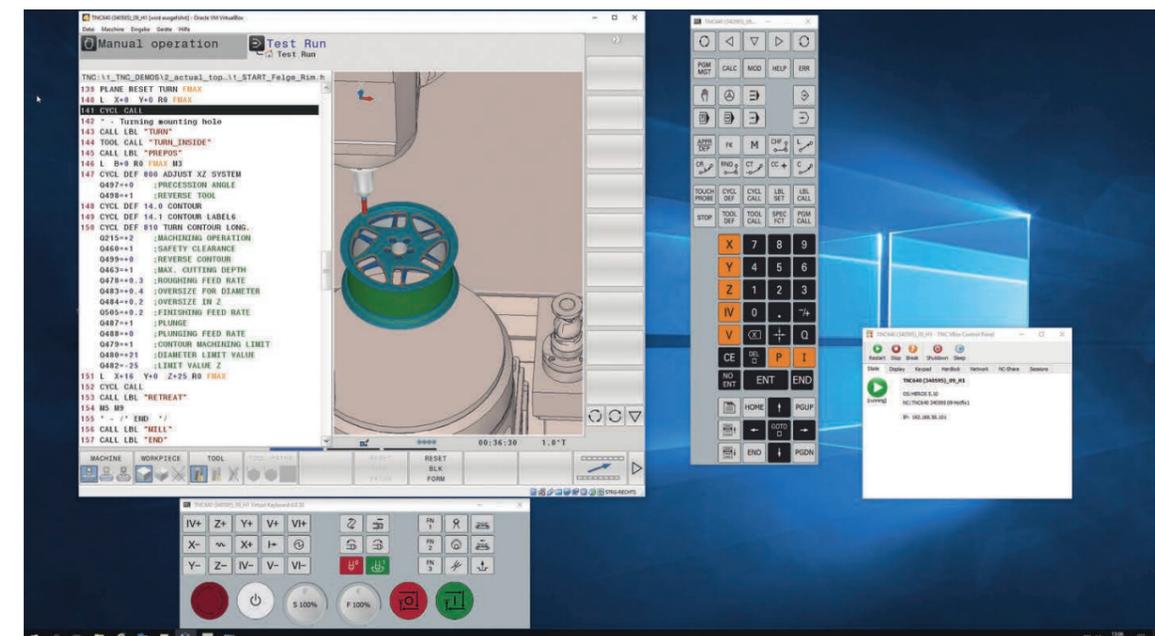
The programming station with virtual keyboard is available in the following versions:

- **Single station license**
- **Network license** for 1, 14 or 20 stations.

The stations must be interconnected with each other, because the software dongle is connected to only one PC. The network license is therefore especially useful for training rooms.



Programming station with TNC operating panel



Programming station with virtual keyboard

– Versions and system requirements

Which programming stations are available?

Programming stations are available for all current TNC controls. The programming station contains the following:

- Programming station software
- VirtualBox (VBox) virtualization software from ORACLE
- VBox expansion: TNC VB Base Software and data for the installation and operation of all programming stations (Control Center and virtual keyboard)

The programming station DVD also includes all of the necessary drivers and the current User's Manuals in all available languages.

System requirements

- *Operating system:* Windows 10 (64-bit) with the recommended system prerequisites
- *Processor:* Processor with virtualization support
- *Main memory:* Recommended system requirements for the operating system, plus 2 GB RAM for each started programming station
- *Hard disk:* At least 10 GB of available RAM for each programming station
- *Resolution:* At least 1024 x 768 pixels (TNC 640: 1280 x 1024 pixels)
- *Color depth:* At least 65536 colors (16 bits)
- *Drive:* DVD drive (for programming station DVD)
- *Interfaces:* USB port (required for the software release module)
- LAN port (for network license)

Programming station	TNC 640	TNC 620 TNC 320	iTNC 530
Free demo version (DVD)	ID 1114029-xx ¹⁾	ID 1114030-xx ¹⁾	ID 1114028-xx ¹⁾
With TNC operating panel	ID 1113967-02		
With virtual keyboard			
Single station license	ID 1113924-03		
Network license, 1 station	ID 1125955-03		
Network license, 14 stations	ID 1113926-03		
Network license, 20 stations	ID 1113928-03		
Operating panel without dongle	ID 1113967-52		

¹⁾ Can also be downloaded from www.heidenhain.de

Conversational languages

You can install the TNC programming station with several languages and switch among them during operation. All dialogs and soft keys are then displayed in the respective national language. The following languages are available:

- Chinese (simplified and traditional)
- Danish
- German
- English
- Finnish
- French
- Italian
- Korean
- Dutch
- Norwegian
- Polish
- Portuguese
- Romanian
- Russian (Cyrillic)
- Swedish
- Slovak
- Slovenian
- Spanish
- Czech
- Turkish
- Hungarian

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HEIDENHAIN

DR. JOHANNES HEIDENHAIN GmbH

Dr.-Johannes-Heidenhain-Straße 5

83301 Traunreut, Germany

☎ +49 8669 31-0

FAX +49 8669 32-5061

E-mail: info@heidenhain.de

www.heidenhain.de



More information:

- TNC 640 brochure
- TNC 620 brochure
- TNC 320 brochure